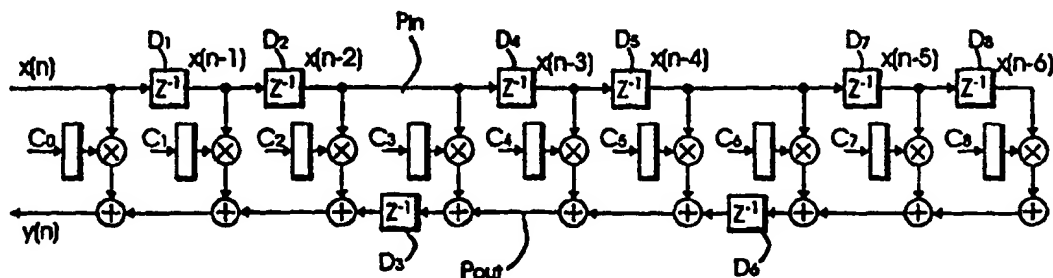




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H03H 17/06, H04B 3/23, 3/32, H04L 25/14, 25/497, 1/00	A3	(11) International Publication Number: WO 00/28663 (43) International Publication Date: 18 May 2000 (18.05.00)
(21) International Application Number: PCT/US99/26483 (22) International Filing Date: 9 November 1999 (09.11.99) (30) Priority Data: 60/107,877 9 November 1998 (09.11.98) US 60/108,319 13 November 1998 (13.11.98) US 60/130,616 22 April 1999 (22.04.99) US (71) Applicant (for all designated States except US): BROADCOM CORPORATION [US/US]; 16215 Alton Parkway, Irvine, CA 29618 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): HATAMIAN, Mehdi [US/US]; 25681 Pacific Hills, Mission Viejo, CA 92692 (US). (74) Agent: HOANG, Phuong-Quan; Christie, Parker & Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068 (US).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> (88) Date of publication of the international search report: 17 August 2000 (17.08.00)	

(54) Title: FIR FILTER STRUCTURE WITH LOW LATENCY FOR GIGABIT ETHERNET APPLICATIONS



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INTERNATIONAL SEARCH REPORT

Int. Patent Application No
PCT/US 99/26483

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H03H17/06 H04B3/23 H04B3/32 H04L25/14 H04L25/497
H04L1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03H H04B H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DUNCAN ET AL.: "Strategies for design automation of high speed digital filters" JOURNAL OF VLSI SIGNAL PROCESSING, vol. 9, no. 1/2, September 1995 (1995-09), pages 105-118, XP000525889 Dordrecht, NL</p> <p>page 105, left-hand column, paragraph 1</p> <p>page 105, right-hand column, paragraph 3</p> <p>page 108, right-hand column, paragraph 2 - paragraph 4</p> <p>page 108, right-hand column, paragraph 6</p> <p>-page 109, left-hand column, paragraph 1</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-20

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/26483

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CARAISCOS, PEKMESTZI: "Low-latency bit-parallel systolic VLSI implementation of FIR digital filters"</p> <p>IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II: ANALOG AND DIGITAL SIGNAL PROCESSING, vol. 43, no. 7, July 1996 (1996-07), pages 529-534, XP000630793</p> <p>New York, US</p> <p>ISSN: 1057-7130</p> <p>page 529, right-hand column, paragraph 2</p>	1-20
X	<p>PEKMESTZI, CARAISCOS: "Implementation of systolic multipliers and digital filters via signal flow-graph transformations"</p> <p>THE MEDITERRANEAN ELECTROTECHNICAL CONFERENCE, 12 - 14 April 1994, pages 105-108, XP000506110</p> <p>New York, US ISBN: 0-7803-1773-4</p> <p>page 107, left-hand column, paragraph 1</p>	1-20
A	<p>WO 98 43369 A (LEVEL ONE COMMUNICATIONS)</p> <p>1 October 1998 (1998-10-01)</p> <p>page 7, line 25 - line 28</p>	1,11

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. l. Application No

PCT/US 99/26483

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WO 9843369 A	01-10-1998	AU 6773698 A EP 0972356 A	20-10-1998 19-01-2000